

# *Much Ado about Something: Insights into the Science Communication Process*

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## **I. Introduction**

The discussion of media and science communication is not a new one, and the roles of scientists and journalists in the reporting of health and medical research has long been analyzed, criticized, discussed and fussed over. Among the many areas in need of improvement, some say that the media is guilty of committing the sin of omission,<sup>1</sup> while others say that scientists are to blame for their poor lay communication skills.<sup>2</sup> However, one thing everyone seems to agree on is that the media has a big, albeit complex, impact on the public understanding of science. Moreover, public opinion plays a role – to varying degrees – in health care policies, in research funding, and in how members of the public make decisions about their own or families' healthcare.<sup>3</sup>

Given the strong media interest in allergy and asthma research and education in Canada,<sup>4</sup> this area provides an opportunity to examine the science communication process. Insights from this process may help to inform future communication strategies, including the development of relevant research policies; educating patients, caregivers and the general public; and addressing issues in allergy and asthma in general.

While health news may arise in many contexts, a common venue for media coverage of health research is scientific meetings. In order to further explore media coverage in the field of allergy and asthma, I took advantage of a recent expedition to New Orleans for the annual meeting of the American Academy of Allergy, Asthma, and Immunology (AAAAI) to observe this one process of

science communication in action. Through observations of poster presentations and media interviews, as well as unstructured interviews with an academic researcher and a media representative, a rough sketch of one particular forum for science communication emerges.<sup>5</sup>

## **II. Background**

In some fields, asthma and allergy included, the scientific meeting is a crucial mechanism for knowledge dissemination and networking and is also a common site for media attention of new research findings. Some have questioned the usefulness of media reports from scientific meetings, mainly due to the preliminary nature of much of the results being presented in this context. One study found that a quarter of the abstracts that receive media coverage are never published in peer-reviewed journals for a number of reasons ranging from rejection to manuscripts never being submitted for peer review.<sup>6</sup> A later study found that a very small percentage of news stories that reported on abstracts from scientific meetings reported limitations, risks, and more importantly, the preliminary nature of the results being presented.<sup>7</sup> Another useful point to mention is the use of press releases as a source of information for journalists, common practice at large scientific meetings. One study of press releases from U.S. medical centers found that a considerable amount of media coverage of health news is based on press releases and that some of the exaggeration and omission of risks and limitations of research originate in press releases, and not necessarily with the media.<sup>8</sup> While a comparison of scientific



abstracts, press releases and published news articles is a useful gauge, it is also important to understand what happens between point A (a scientific abstract) and point B (a news article).

### III. Media at a Scientific Meeting

The AAAAI annual meeting provides a useful snapshot of media coverage of health news. First, picture a large venue, thousands of people, and a tightly packed five-day schedule. Academic scientists and researchers from around the world are presenting their research to their peers and interested parties, including media representatives. At any given point in the day, there are dozens of options to attend a workshop, seminar, debate, oral or poster presentation.

There can be two ways of looking at the science communication process in the situation mentioned above: from a journalist's perspective and from a researcher's perspective. Based on interviews with a journalist and with a researcher, it seems that for a journalist, science communication is about finding information that is relevant to a publication's readership, but generally, they are "not overly interested in basic science." For researchers, science communication is about conveying their research and needing "to get (the) message across despite what the reporter is saying or asking."

As you might imagine, the process is a bit more detailed. Among the many methods of "finding a story", media representatives can browse the meeting program for relevant and/or interesting abstracts, listen to the buzz at the conference (what presentations are people talking about?), attend oral and poster presentations, interview scientists and researchers, and perhaps most commonly, they can visit the press room and scan the many press releases that the academy's communications staff produces throughout the meeting. The journalist I interviewed said most of his ideas came from reading abstracts, but that non-specialist journalists often rely heavily on the press releases produced by the academy's communications staff.

A journalist might also contact the researcher or attend their poster presentation for a short interview to clarify or gain more information about the research. This last point might be a sore one for researchers who feel that journalists have chosen their story before meeting and are simply looking for good quotations and verification.

This is reflected in one researcher's approach to media interviews: "Try to overwhelm the journalists before they overwhelm you."

Once newsworthy research has been found, there are also many ways that this research can then be shared with the public. Many journalists seem to employ several communication tools. Traditional forms for communication such as newspapers and television now compete with many new forms of media (e.g., Internet, Facebook, Twitter, blogs, etc.).<sup>9</sup> Many journalists are also freelance writers and may be writing for several publications as well as updating personal blogs or Twitter accounts. Some publications are general news forums, whereas others might be health or biomedical specific publications where you may find a greater degree of fact-checking or editing by health professionals.

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Considering the amount of options available to a journalist, it seems fair to assume that facts and important points would get skewed or omitted in the process. However, studies have shown that newspaper coverage is fairly accurate<sup>10</sup> and interactions between scientists and the media have been fairly positive overall.<sup>11</sup>

My experience at the AAAAI annual meeting supports the aforementioned findings, but also raises another question. I had the opportunity to observe an interview between a researcher and a media representative, and follow the resulting news article. After a few rushed e-mails, the researcher and journalist met in the press room. The interview lasted for roughly 10 minutes, where the researcher quickly explained the main takeaway points of the research at issue, and the journalist asked a few clarifying questions in regards to policies and the researcher's personal opinions. The researcher was careful to make sure the reporter wrote down the facts



correctly and then the interview was over before I knew it. In a brief discussion with the researcher following the interview, I discovered this was a fairly typical media interview.

The resulting news article written by this particular journalist was fairly accurate, with a few misplaced details. This is only one interview, but based on previous research this one interaction seems to support what others have already said. So, is there much ado about something?

Some have speculated that the problem rests in too much attention given to negative experiences with media while ignoring the positive or routine experiences,<sup>12</sup> and others have discussed the differences between scientists and journalists in framing messages.<sup>13</sup> A number of initiatives and resources have been developed over the past decade to help both the researcher and the journalist with communicating research accurately to lay audiences. For example, there have been a number of publications directed at researchers aimed at improving their skills in communicating with the press and the public.<sup>14</sup> A number of forums have also been developed that act as independent sources of science information where scientists can share their research with the media and the media has access to simplified information about science research.<sup>15</sup>

However, the problem does not appear to lie with one single party, and each party faces differing purposes and pressures from a myriad of sources. Trying to untangle the web of factors that influence science communication on all ends of the spectrum, (e.g., administrative duties, funding concerns, and time constraints to name a few) may be more work than it is worth. In addition to initiatives that aim to help scientists and journalists communicate science more effectively and accurately, there has also been a greater push towards scientists engaging directly with the public and increasing lay audiences' participation in science policy and funding decisions.<sup>16</sup> Public engagement initiatives (e.g., *cafés scientifiques*, citizen juries, etc.) have been successful at drawing the public into both the details of specific research and important social and ethical issues associated with the research.<sup>17</sup> While public engagement may not be at the top of the list of priorities for scientists and academic researchers,<sup>18</sup> an educated public that is sympathetic to evidence-based issues in allergy and asthma may result in benefits to policy, research funding and infrastructure

that far outweigh the efforts needed to unravel and overhaul the science communication process.

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## Endnotes

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